WHAT IS CLAIMED IS:

1. An optical head comprising a light source which performs recording and/or playback of the information on the optical disc, an object lens which focuses the light ray emitted from the light source to the information recording layer through the light transparent layer of the optical disc, a branching portion which branches reflected luminous flux from the optical disc to between the light source and the object lens, a detection lens which focuses the light ray branched by the branching portion, and a light receiving portion which receives light ray and generates a light intensity signal according to the intensity of the received light ray, wherein

the light source has plural light-emitting parts which each output light ray of a different wavelength; and

an optional light-emitting part among the light-emitting parts is arranged, so that the optical axis of the output light ray is located on the optical axis of the optical system.

2. An optical head according to claim 1, wherein said plurality of light-emitting parts of the light source are stacked in series to the vertical direction of the active layers which include light-emitting points; and

the light-emitting points are arranged in series

close to each other by the control of the active layer thickness.

3. An optical head according to claim 2, wherein said plurality of light-emitting parts of the light source include a monolithic 2-wavelength laser element and a semiconductor laser element which can output a blue laser beam; and

active layer of the semiconductor laser element are stacked in the direction vertical to the face direction of active layer of the monolithic 2-wavelength laser element.

4. An optical head according to claim 2, wherein each said light-emitting part is constructed such that $\alpha < \beta \leqq \gamma$, assuming that the light-emitting point of the light source with the shortest wavelength is A, the light-emitting point with the next shortest wavelength is B, and the light-emitting point with the longest wavelength is C, and assuming that the distance between A and B is α, the distance between B and C is β, and the distance between C and A is γ.

5. An optical head according to claim 3, wherein each said light-emitting part is constructed such that $\alpha < \beta \leqq \gamma$, assuming that the light-emitting point of the light source with the shortest wavelength is A, the light-emitting point with the next shortest wavelength is B, and the light-emitting point with the longest wavelength is C, and assuming that the distance

between A and B is α, the distance between B and C is β, and the distance between C and A is γ.

6. An optical disc apparatus comprising:

an optical head having a light source which is necessary to perform recording and/or playback of information on the optical disc, an object lens which focuses the light emitted from the light source on to the information recording layer through the light transparent layer of the optical disc, a branching portion which branches reflected luminous flux from the optical disc to between the light source and the object lens, a detection lens which focuses the light branched by the branching portion, and a light receiving portion which receives light and generates a light intensity signal according to the intensity of the received light ray, wherein the light source of the optical head has plural light-emitting parts which each output light of a different wavelength, and one of the light-emitting parts is arranged on the optical axis of the optical system;

a laser drive circuit which outputs light with a predetermined wavelength from an optional light-emitting part of the optical head;

a signal processor which plays information recorded on the recording medium, based on the signal output from the photodetector of the optical head; and

a motor which rotates the recording medium at

a predetermined speed.

7. An optical head according to claim 6, wherein said plurality of light-emitting parts of the light source are stacked in series to the vertical direction of the active layers which include light-emitting points; and

the light-emitting points are arranged in series close to each other by the control of the active layer thickness.

8. An optical head according to claim 7, wherein

said plurality of light-emitting parts of the light source include a monolithic 2-wavelength laser element and a semiconductor laser element which can output a blue laser beam; and

active layer of the semiconductor laser element are stacked in the direction vertical to the face direction of active layer of the monolithic 2-wavelength laser element.

9. An optical head according to claim 7, wherein

each said light-emitting part is constructed such that $\alpha < \beta \leqq \gamma$, assuming that the light-emitting point of the light source with the shortest wavelength is A, the light-emitting point with the next shortest wavelength is B, and the light-emitting point with the longest wavelength is C, and assuming that the distance between A and B is α, the distance between B and C is β, and the distance between C and A is γ.

10. An optical head according to claim 8, wherein each said light-emitting part is constructed such that $\alpha < \beta \leqq \gamma$, assuming that the light-emitting point of the light source with the shortest wavelength is A, the light-emitting point with the next shortest wavelength is B, and the light-emitting point with the longest wavelength is C, and assuming that the distance between A and B is α, the distance between B and C is β, and the distance between C and A is γ.